REMARKS

Claims 1-7, 10, 12, 15-23, 35-39, 41 and 43-45 are currently pending in this application. Claims 1, 2, 4, 9, 10, 12, 15, 16, 18, 19, 24, 26, 36, 41 and 43 have been amended. Claim 45 has been canceled. Support for the term "benzyl" in claim 12 can be found in Figs. 9 and 10 of the application. Support for the term "carrier" in claim 36 is inherent in a composition claim. No new matter has been added. In view of these amendments and of the following remarks, Applicants believe that all the asserted rejections are in condition for withdrawal and all the claims are in condition for allowance.

Applicants respectfully request that the finality of the restriction requirement be withdrawn and non-elected claims 8, 9, 11, 13 and 24-34 be rejoined in this application for the following reasons.

The Examiner states that the "traversal on the grounds that the general inventive concept is the cyclohexenyl moiety" is "not found persuasive because in fact, a cyclohexenyl ring is not required to be present" and that the ring can be a benzene ring. The Examiner therefore is objecting to claims 1-7, 10, 12, 14-23, 35-39, 41 and 43-45 as having non-elected subject matter present.

Claim 1 has been amended to recite that "Z represents the presence of one double bond in the six membered carbocylic ring." Thus, the invention as now claimed is limited to compounds that all contain a cyclohexenyl moiety. Applicants again submit that the critical inventive feature of the claimed invention is an unsaturated cyclohexenyl moiety with particular substituents at position X, and not the nucleobase or nucleobase analogue (referred to as "B") asserted by the Examiner.

According to In re Lee, 199 U.S.P.Q. 108, 109 (Comm'r Pats. 1978):

> [I]n the situation where the inventions in question are 'related', it is necessary, to support a restriction requirement, to show that they are "distinct." MPEP 802.01 defines "distinct" as necessitating that the inventions, inter alia, be patentable over each other. The Manual provides no guidelines on how to determine if two "related" inventions are

> patentable over each other... In view of the Office policy with respect to restriction requirements set forth above, the closeness of the "patentably distinct" question, and Petitioners' clear and unambiguous admission that the inventions are not patentable over each other, it is concluded that the public interest is better served by withdrawing the restriction requirement and permitting both inventions to be prosecuted in the same application.

Therefore, Applicants hereby stipulate that the related inventions to which the Examiner has issued a restriction requirement, namely, the nucleobase or nucleobase analogues, are not patentable over each other, and point out that such a "clear and unambiguous admission that the inventions are not patentable over each other" is sufficient to withdraw the restriction requirement issued by the Examiner. Applicants, therefore, respectfully request that the Examiner remove the finality of the restriction requirement and rejoin claims 8, 9, 11, 13 and 24-34, which have been withdrawn from consideration in this application.

Additionally, Applicants have filed a Petition From Requirement For Restriction Under C.F.R. § 1.144 with the Group Director of Art Unit 1624, a courtesy copy of which is enclosed herein.

Claims 1, 2, 10 and 12 stand rejected under 35 U.S.C. § 102(b) for purported anticipation by Maurinsh et al. The Examiner asserts that Maurinsh et al. teach a compound (6), corresponding to B = adenine N-protected with methoxytrityl, R^1 = trityl, X = H, and Z forming a cyclohexane of Formula III. The Examiner asserts that compound 5 is similar, with R^1 as H. Claim 1 has been amended to delete hydrogen as one of the substituents for "X" in formula I. Because claims 2, 10 and 12 depend from claim 1, they too no longer recite hydrogen as a substituent for "X." Applicants submit, therefore, that Maurinsh et al. do not teach or suggest the compounds as now claimed in claims 1, 2, 10 and 12.

Claims 1, 10 and 12 stand rejected under 35 U.S.C. § 102(b) for purported anticipation by Gannett et al. and Hiramoto. The Examiner asserts that Gannett et al. teach a "compound 2b", on page 299, which corresponds to Z, making this a phenyl ring.

Additionally, the Examiner directs Applicants attention to Hiramoto et al. and to the second compound in chart 2. Applicants have carefully reviewed the above-identified compounds of Gannett et al. and Hiramoto references and cannot find where either reference teaches or suggests the compound recited in claim 1. Thus, Applicants submit that neither Gannett et al. or Hiramoto anticipates the claimed invention.

Claims 1-5, 10 and 12 stand rejected under 35 U.S.C. § 102(b) for purported anticipation by Konkel et al. The Examiner asserts that "14," on page 801, for the cis compound with R^1 = H and X = H, corresponds to formula II, IV, VIII, X and X', and directs Applicants attention to compound 19, on page 802, which is a protected version, i.e., a carbamate. The Examiner states that these compounds are presumed to be a mixture of both cis isomers. Claim 1 has been amended to delete hydrogen as one of the substituents for "X" in formula I. Because claims 1-5, 10 and 12 depend from claim 1, they too no longer recite hydrogen as a substituent for "X." Applicants submit, therefore, that Konkel et al. do not teach or suggest the compounds as now claimed in claims 1-5, 10 and 12.

Claims 1-7, 10, 12, 14-23, 35-39, 41 and 43-45 stand rejected under 35 U.S.C. § 102(a) for purported anticipation by Wang (2000) or Wang (1999). The Examiner asserts that the Wang references were published before the filing of the PCT application and that the subject matter disclosed therein is the same as the subject matter of the PCT application. Further, the Examiner asserts that the rejected claims are not entitled to the benefit of any of the U.S. provisional applications, in that none of the provisional applications has the scope of genus as seen in the rejected claims, and assertedly a great deal of material was added to the PCT application which was not in any given provisional application.

Applicants respectfully disagree with the Examiner's assertions, in that the two above-cited Wang publications contain subject matter which is nearly identical to the two United States provisional applications, to which the present patent application claims priority. Therefore, although claim 1 has a scope of genus broader than the disclosures of the two provisional applications, the Wang references do not anticipate claim 1 because they are nearly identical to the two provisional applications and thus do not teach the

broad scope of genus recited in claim 1. Thus, because the two provisional applications were filed before the publication dates of the Wang references, the Wang references cannot be anticipatory references.

The Examiner is objecting to the abstract as being too vague. The Abstract has been amended to include Formula I and to shorten the definitions, as suggested by the Examiner.

Claims 1-7, 10, 12, 15-23, 35-39, 41 and 43-45 stand rejected under 35 U.S.C. 112, second paragraph, for purported indefiniteness.

The Examiner asserts that the term "general" is indefinite. Claims 1, 2, 9, 15, 18, 24, and 26 have been amended to delete the term "general," as suggested by the Examiner.

The Examiner asserts that the scope of "purine bases" is unclear, and that Applicants actually intend that the purine be substituted, and thus asks whether the substitution is mandatory or optional and what substituents are permitted and what substituents are not. Claim 10 has been amended to recite "purine bases which are optionally substituted with aza, deaza, deoxy or deamino analogues," thus obviating this rejection.

The Examiner asserts that "for example" is improper alternative language and is not needed. Claim 1 has been amended to delete "for example," thus obviating this rejection.

The Examiner states that "substitute" in claim 4 should presumably be replaced by "substituted." Claim 4 has been amended to recite the terms "substituent" instead of "substitute," thus obviating this rejection.

The Examiner asserts that the last claim 12 choice is in error, because the protecting group, which is divalent, has to be monovalent because it is attached to an oxygen, and is requiring Applicants to show what group was intended, e.g., benzyl, benzhydryl or alpha-phenethyl, and that one skilled in the art would have known that this choice was intended. Applicants respectfully disagree with the Examiner's assertion that the C_6H_5-CH= group protecting group must be monovalent. As shown on page 34, molecule 8, and on page 50, compound XIII, of the specification, the benzyliden

protecting group, which is a divalent molecule, is provided, and which also is a C_6H_5-CH= group and is a divalent molecule. Additionally, Applicants have amended claim 12 to now recite "benzyl" as one of the protecting groups.

The Examiner asserts that the term "providing" in claim 15 is not clear, and if a synthesis step was intended, it was not recited, and the nature of the starting material and the nature of the actual step is not given. The Examiner further asserts that claim 18 is improperly dependent on claim 15, in that claim 15 makes no provision for R^1 and R^2 to be combined into a single substituent, and thus the dependency of claim 18 on claim 15 makes it unclear what claim 15 really intends. Additionally, in claims 15 and 19, the Examiner asks what would an "analogue" cover and what would it not cover, and further asks where is the line between analogue of formula XIII and one which is not.

Claim 15 has been amended to recite "a method of producing" in the preamble instead of "process for providing" and to recite "reacting" instead of "providing," thus clarifying that the method is a reaction and the starting material of the reaction is a cyclohexenyl compound of formula XII. Claim 15 has been amended further to recite that R^1 and R^2 can be a single protecting group, thus clarifying the dependency of claim 18 on claim 15.

With respect to what would an analogue cover and what would it not cover, and where is the line between analogue of formula XIII and one which is not, in claims 15 and 19, Applicants point out that neither an analogue nor formula XIII is recited in claim 15. Formula XIII is recited in claim 19 but there is no recitation in claim 19 of an "analogue of XIII." Rather, a "benzaldehyde analogue" is recited, thus making the scope of "an analogue of XIII" irrelevant. In this regard, it should be noted that the analogues of benzaldehyde that are reacted with compound XIII may be dialkyl analogues, such as benzaldehyde dialkyl acetal, and more specifically dimethyl acetal.

The Examiner asserts that the dependency of claim 19 on claim 15 is in error, because the XIV compound to which it refers is in claim 19, not 15. Claim 19 has been amended to depend from claim 18, as the "compound XIII" recited in claim 19 is first recited in claim 18.

The Examiner asserts that the term "type" is unclear in claim 16. Claim 16 has been amended to delete the term "type."

The Examiner asks what does "Me" stand for: metal or methyl, in claims 20 and 23. Applicants submit that one of ordinary skill in the field of medicinal chemistry easily would understand that the symbol "Me" recited in claims 20 and 23 refers to a "methyl group" and not to "metal."

Finally, the Examiner asserts that claim 36 is improper because it does not recite a carrier, thus making it a compound, not a composition, claim. Claim 36 has been amended to add the term "carrier."

Claim 20 stands rejected under 35 U.S.C. § 112, paragraphs 1 and 2, for purported lack of enablement and/or lack of written description. The Examiner asserts that the reaction recited therein is "impossible" because a reductive process will not remove a methyl from a methoxy of the XVA compound, or remove the alkyl or alkenyl from the alkoxy or alkenyloxy of the XVB compound, which requires a reagent such as concentrated HBR, which is unsuitable because of the addition of a double bond in the ring. Thus, the Examiner asserts that claim 20 is either written incorrectly or is not enabled. The Examiner states that he cannot locate this reaction in the specification, and hence claim 20 assertedly also lacks written description. Applicants respectfully disagree with the Examiner's assertion and directs the Examiner to Experimental Example 2, page 32, middle of the page, wherein the reaction to form the title product, (±) 4-hydroxymethyl-cyclohex-2-en-1,5-diol (compound 7a), from compound XVA, is described in detail. Moreover, compound XVB is a broadening of the XVA structure.

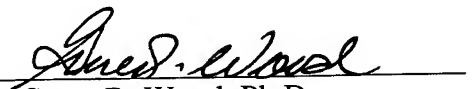
Claims 41 and 43 stand rejected under 35 U.S.C. § 112, first paragraph, for purported lack of enablement. The Examiner asserts that the claims recite "effecting any pharmaceutical use whatsoever, without limitation," and thus such a scope cannot be enabled. Claims 41 and 43 have been amended to recite "herpes viruses, pox viruses and related viruses."

Finally, claim 45 stands rejected under 35 U.S.C. § 112, first paragraph, for purported lack of enablement for viruses generally. Claim 45 has been canceled, thus mooting this rejection.

Based on the foregoing, Applicants respectfully submit that currently pending claims 1-7, 10, 12, 15-23, 35-39, 43 and 44 now are patentable and in condition for allowance. Furthmore, Applicants respectfully request rejoinder of non-elected claims 8, 9, 11, 13 and 24-34. Reconsideration of the rejections and allowance of claims 1-39, 41 and 43 are respectfully requested.

Respectfully submitted,

THE WEBB LAW FIRM

By 

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